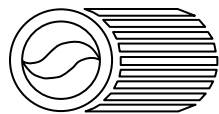


Fuels Workshop on Regulatory and Non-Regulatory Fuels Activities for 2005

November 3, 2005

California Environmental Protection Agency



Air Resources Board

Agenda

- Introduction
- Gasoline
 - Proposal for Flexibility, Enforceability, and Consistency
 - Predictive Model
 - Permeation
 - Test Methods
 - CARBOB Model Validation
- Diesel
 - Low-Sulfur Implementation
 - Lubricity
- Other Topics?
- Open Discussions
- Closing Remarks

Discussion Topic: Gasoline

Proposal for Flexibility, Enforceability, and Consistency

Predictive Model

- Committed to the Board to review need for update about every 5 years – last updated 1999
- Issues
 - Permeation
 - Carbon Monoxide
 - New Data
 - Emissions Inventory Model - EMFAC
- Present Proposal for new model to Board in late 2005 or early 2006

Permeation Test Program

- In 2002, the CRC and ARB co-funded permeation study
- Results:
 - Ethanol fuel higher than MTBE on all vehicles and higher than non-oxy on almost all vehicles
 - 65% or 1.4 grams/day more than MTBE gasoline
 - 45% or 1.1 grams/day more than non-oxygenated gasoline

What's Next

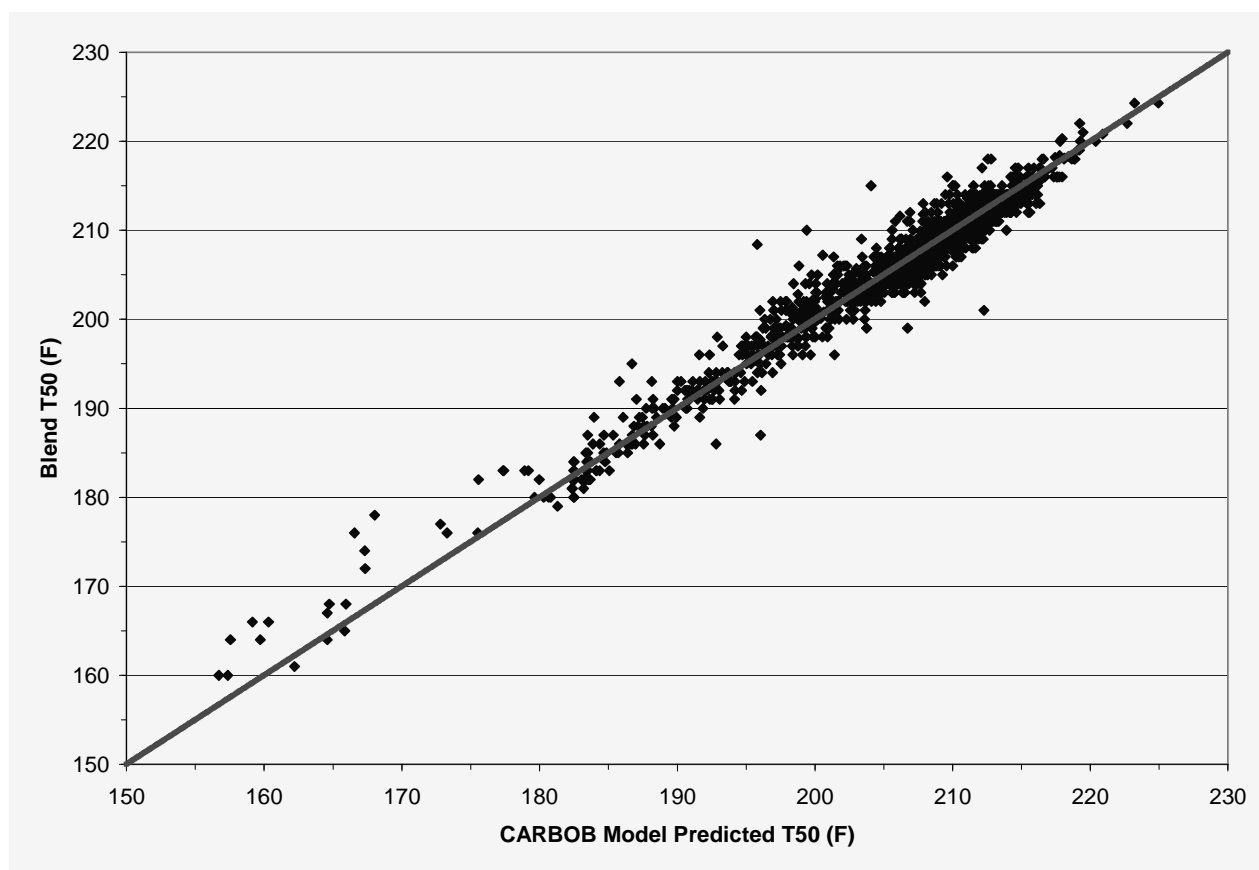
- ☞ The CRC is proceeding with a second stage of the test program
- ☞ Two additional vehicles: LEV II and PZEV
- ☞ Two additional fuels: 10% ethanol and a higher aromatics fuel
- ☞ E-85 will also be tested on an flexible fueled vehicle

Test Methods

CARBOB Model Validation

- CARBOB regulation approved by Board April 25, 2001
- CARBOB regulation allows refiners to certify blends without having to do hand blends of ethanol
- The Board directed staff to validate the CARBOB model using Phase 3 RFG
- Refiners have submitted their data
- Expect work to be finished by the end of the summer

Measured vs. Predicted T50



Topics:

Diesel

Implementation of Low-Sulfur Diesel Fuel Regulations

- Low-Sulfur regulation approved by Board in 2003
- Implemented in 2004
- Requires 15 ppmw sulfur limit on California motor vehicle diesel fuel
 - June 1, 2006 – Refinery
 - 45 days later – Terminals
 - 45 days later – Retail Outlets

Implementation of Low-Sulfur Diesel Fuel Regulations

- Section 2281(g) requires that each producer provide an updated version of their compliance plans to ARB Executive Officer
- So far, all California refiners appear to be on schedule and are expected to meet the June 1, 2006 limit of 15 ppmw

Lubricity

- ARB approved a lubricity standard for motor vehicle diesel fuel in 2003
- ARB provision sunset when Division of Measurement Standards start enforcement
- Division of Measurement Standards is surveying the statewide diesel fuel pool to assess the current state of lubricity in California

Other Topics?

- California Wintertime Oxygenate requirement for CO Non-Attainment Area - LA

Open Discussions

Closing Remarks